

Patent claims

1. A staining machine for treatment of tissue specimens on slides placed in baskets (9), which machine includes a number of baths (7, 12) placed successively in a row (6 resp. 11), and a device for successive transport of the baskets in a transport path from one bath to the next one, the baskets (9) being transported from an input station (5) to an output station (14) in accordance with a predetermined treatment program, **characterised in** that the machine includes at least two bath rows (6 resp. 11) placed juxtaposed and parallel with each other, the first bath row (6) extending from the input station (5) to an opposite end of the row, and a second bath row (11) extending from the output station (14) to an opposite end of the row, a first device (8, 21, 22) for transport of baskets (9) in a first transport path from the input station (5) to the opposite end of the first row (6), a second device (13, 15-19) for transport of baskets (9) in a second transport path towards the output station (14) from the opposite end of the second row (11), and a device for the transfer of baskets between the transport paths at opposite ends belonging together of the relevant rows.

2. A staining machine according to claim 1, **characterised in** that it includes only a first (6) and a second (11) bath row, the input and output stations (5, 14) being situated next to each other, and the device (10) for transfer of baskets (9) being a crossbar device which is arranged to transfer baskets between two baths which are located next to each other at said opposite ends of the two rows (6, 11).

3. A staining machine according to claim 1 or 2, **characterised in** that each transport device comprises a pair of cheeks (8 resp. 13) extending along respective sides of the bath row (6 resp. 11) in question and being adapted for engagement with respective baskets (9), and a device (21, 22 resp. 15-19) for lifting and lowering of the cheek pair (8 resp. 13) for successive movement of baskets (9) from bath to bath.

4. A staining machine according to claim 3, **characterised in** that the lifting and lowering device comprises a pair of toothed belts (15) of which each runs in a closed path over an upper (16) and a lower (17) guide wheel and is coupled to an end portion of a respective cheek (13) via a carrier (18), the toothed belts (15) being driven synchronously by means of a step motor (19), so that the cheeks (13) can be lifted and lowered in a stadium-shaped movement.

5. A staining machine according to claim 4, **characterised in** that the toothed belts (15) via an additional toothed belt (20) is coupled to corresponding toothed belts (15) with appurtenant guide wheels and carriers at the other end of the cheeks (13), so that the cheeks are lifted and lowered synchronously at each end thereof.

6. A staining machine according to claim 2, **characterised in** that the crossbar device (10) comprises a crossbar bracket (29) which is adapted for releasable connection

with a basket (9), and which is coupled to a means (33-37) for reciprocating movement of the crossbar bracket (29) in a horizontal path.

5 7. A Staining machine according to claim 6, **characterised in** that the movement means comprises a slide block (33) which is coupled to the crossbar bracket (29) and is displaceable on a horizontal guide rod (39), the slide block (33) being coupled to a toothed belt (37) which is driven back and forth by means of a step motor (36).